

$$\textcircled{1} \frac{(x+3)}{(x+1)}$$

$$\textcircled{2} \frac{3y^3}{4x}$$

$$\textcircled{5} \frac{(5x-20)}{x-4} \cdot \frac{(2x^2+6x)}{5x+15}$$

$$\textcircled{3} \frac{5x^5}{3y^3}$$

$$\textcircled{4} \frac{x+4}{(x-3)(x-1)}$$

$$\frac{\cancel{5}(x-\cancel{4})}{(\cancel{x}-4)} \cdot \frac{2x(\cancel{x+3})}{\cancel{5}(\cancel{x+3})}$$

$$\textcircled{5} 2x$$

$$\textcircled{6} \frac{20x}{3y^3}$$

$$2x$$

$$\textcircled{7} \frac{x}{3(x-2)}$$

$$\textcircled{8} \frac{1}{2}$$

$$\textcircled{9} \frac{5x-14}{(x+4)(x-4)}$$

$$\textcircled{11} \frac{x^2+3x+9}{x(x+3)(x-3)}$$

$$\textcircled{8} \frac{(\cancel{x+11}) \cdot (\cancel{x+3}) \cdot (\cancel{x+5})}{2(\cancel{x+5}) \cdot 1 \cdot (\cancel{x+11})(\cancel{x+3})} = \frac{1}{2}$$

$$\textcircled{12} \frac{7+x}{x-2}$$

$$\textcircled{14} \frac{6}{(x+5)(x-6)}$$

$$\textcircled{14} \frac{x}{(x-6)(x+5)} - \frac{1}{(x+5)} \cdot \frac{(x-6)}{(x-6)}$$

$$\text{LCD: } (x-6)(x+5)$$

$$\frac{x}{(x-6)(x+5)} + \frac{-x+6}{(x+5)(x-6)} = \frac{6}{\text{LCD}}$$

$$\textcircled{15} \quad \frac{-1}{2x^2}$$

$$\textcircled{16} \quad \frac{x^2 + 6x}{(x+6)(x-1)} = \frac{x\cancel{(x+6)}}{\cancel{(x+6)}(x-1)}$$

$$\frac{\cancel{(x+6)}(x+2)}{\cancel{(x+6)}(x-1)} - \frac{2\cancel{(x-1)}}{\cancel{(x-1)}(x+6)} = \frac{14}{(x+6)(x-1)}$$

$$= \left( \frac{x}{x-1} \right)$$

$$\text{LCD: } (x-1) \cdot (x+6)$$

$$\frac{x^2 + 8x + 12}{(x+6)(x-1)} + \frac{-2x + 2}{(x+6)(x-1)} + \frac{14}{(x+6)(x-1)} = \frac{x^2 + 6x}{\text{LCD}}$$